

Abstract

Compositions are provided that that can be used as an initiator system for free radical polymerization reactions. More specifically, the initiator systems include an electron acceptor and an electron donor. The electron donors are arylsulfinate salts having a cation that contains at least one carbon atom and either a positively charged nitrogen atom or a positively charged phosphorus atom. Methods of polymerization are also provided that can be used to prepare polymeric material with the initiator systems. The initiator systems can be thermal initiator systems, photoinitiator systems, or combinations thereof.